APR 0 5 2006 B

4,590,066

4,661,341

4,670,252

4,846,650

4,877,603 4,919,918

/IC/

PTO/SB/08A (09-03)

Approved for use through 07/31/2006. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO Complete if Known 10/009.004 **Application Number** INFORMATION DISCLOSURE 11/5/2001 Filing Date STATEMENT BY APPLICANT GREGORY First Named Inventor 1652 Group Art Unit (use as many sheets as necessary) **Examiner Name** I. Chowdhur Sheet Attorney Docket Number 7037-405 U.S. PATENT DOCUMENTS Pages, Columns, Lines where **Publication Date** Name of Patentee or Application **Document Number** Cite Examiner Rolevant Passages or Relevant MM-DD-YYYY of Cited Document Number-Kind Code^{2 (If known)} Initials* Figures Appear 12-25-1962 Cooley /IC/ 3.070.510 02-25-1969 Shedlovsky 3,429,963 03-02-1970 Pader 3,538,230 3,678,154 07-18-1972 Widder 08-22-1972 Woodruff 3,686,393 06-05-1973 Francis 3,737,533 06-21-1975 DiGiulio 3,862,307 05-25-1976 Agricola 3.959.458 10-26-1976 Ploger 3,988,443 09-27-1977 Gieske 4,051,234 04-11-1978 Grabenstetter 4,083,955 02-13-1979 Lane 4,139,627 12-08-1981 Chang 4,304,766 01-26-1982 Melsheimer 4,312,889 07-20-1982 Wason 4,340,583 10-12-1982 Guggenheim 4,353,891

Examiner Signature	/lqbal Chowdhury/ (03/21/2007)	Date Considered	

05-20-1986 Parran

04-28-1987 Benedict

07-11-1989 Benedict

04-24-1990 Cole

10-31-1989 Degenhardt

06-02-1987 Sampathkumar

^{*}EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant, 1 Applicant's unique citation designation number (optional), 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04, 3 Enter Office that issued the document, by the two-letter code (MIPO Standard ST.3), 4 For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible, 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Petent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08A (09-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

	_						_			بيها بالأناف والمساوية والمتواط	
Substitute for form 1449A/PTO							Complete if Known				
INFORMATION DISCLOSURE						DE	Application Number 10/0		10/009,004	0/009,004	
STATEMENT BY APPLICANT							Filing Date		11/5/2001		
	STATEMENT BY APPLICANT						First Named Inventor		GREGORY		
							Group Art Unit		1652		
l	(USE	es mai	ny sheets a	s nece	essary)		Examiner Name		I. Chowdhury		
Shee	et	2		of	4		Attorno	y Docket Number	7037-405	a divider y	
							<u> </u>			·	
						U.S	. PATE	NT DOCUMENTS			
Exami	iner	Cite	Ite Document Number			ation Date Name of Patentee or App					
Initials	Initials* No.1 Number-Kind Code ² (If known) MM-DD		D-YYYY	of Cited Do	Relevant Passages or Relevant Figures Appear						
///	J/		4,931,47	3		06-	-05-1990	Kelleher			
			5,143,72	0		09-	-01-1992	Lopes			
			5,283,05	6		02-	-01-1994	Chung		- 1 TO 4 1	
			5,284,64	8		02-	08-1994	White			
			5,352,44	6		10-	-04-1994	Lehner			
	,		5,500,200	6		03-	19-1996	Charbonneau		**************************************	
1			6,254,850	6		07-	03-2001	Tsuchiya	***************************************		
//	C/		6,355,22	8		03-	12-1992	Fugisang		**	

Examiner Signature	/Iqbal Chowdhury/ (03/21/2007)	Date Considered	

^{*}EXAMINER: tritial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional), 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3), 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 6Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, propering, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Petent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08A (09-03)

Approved for use through 07/31/2006. OMB 0851-0031
U.S. Patent and Tradomark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO					Complete if Known					
J ,,	NEU DI	MATION D	197	CLOSURE	Application Number		10/009,004			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					Filing Date I 1/5/2001 First Named Inventor GREGOR		11/5/2001			
							GREGORY			
(415	0.00.00	ny sheets es n	200	econs)	Group Art Unit		1652			
ļ,	0 03 11101		Examiner Name		I. Chowdhury					
Sheet	3	of 4		Attorney Docket Nur	nber	7037-405				
		<u> </u>	.:	FO	REIGN PATENT DO	CUM	ENTS			
Examiner	Cite 1	Foreign Pat			Publication Date		of Patentoe or cation of Cited	Pages, Columns, Lines where Relevant Passages or Relevant		
Initials*	No.	Country Code- I	lumb	e?-Kind Code (If know	MM-DD-YYYY		Document	Figures Appear		
/IC/		WO 00/66616 A1			11-09-2000	Adva	nced Research			

Examiner Signature	/lqbal Chowdhury/ (03/21/2007)	Date Considered	
L		<u> </u>	

EARMINER: musu in reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (aptional), 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3), 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached. *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

language Translation is estached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

Approved for use through 07/31/2008. OMB 0851-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO					Complete if Known				
,,	JEOP	MATION	Die	CI OSIIDE	Application Number	10/009,004			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					Filing Date	11/5/2001			
			M		First Named Inventor	GREGORY			
					Group Art Unit	1652	1652		
(use	e as ma	any sheets a	s nece	essary)	Examiner Name	I. Chow	dhury		
Sheet	4		of	4	Attorney Docket Number	7037-405			
		OTHER	PRIO	R ART - NON PA	TENT LITERATURE DO	CUMENTS			
Examiner Initials*	Cite No. 1	ncluc magazina	ie name , journal	of the author (in CAPITAL I, serial, symposium, catalo	LETTERS), title of the article (when a og, etc.), date, page(s), volume-issue r where published	ppropriate), title of the ite number(s) publisher city (em (book, and/or country	τ2	
/IC/		BEUKES by Strepto	ococci	Purification and Part us milleri MNSCC 06	tial Characterization of a Mur 51", Applied Environ. Microbi	ein Hydrolase, Mill ol., Jan. 2000, Vol.	ericin B, Produced /Issue No. 66(1),		
		BROWN,	ALAN	E., "Prevalence of ol., Dec. 1999, Vol./I	the Amylase-Binding Protein ssue No. 37(12), pp. 4081-40	A Gene (abpA) in 085	Oral Streptococci",		
	BURNE, ROBERT A., "Regulation mutans GS-5 by Induction and Ca No. 181(9), pp. 2863-2871				of Expression of the Fructan bon Catabolite Repression",	Hydrolase Gene o J. Bacteriology, Ma	f Streptococcus by 1999, Vol./Issue		
		CHIA, JE and the M	AN-SA Nainter	AN. "A 60-Kilodalton	Immunodominant Glycoprot in Streptococcus mutans", I	ein Is Essential for nfect. Immun., Nov	Cell Wall Integrity v. 2001, Vol./Issue		
		FONTAN Antibodie	A, MA s to S	RGHERITA, "An In treptococcus mutan	No Vitro Microbial-Caries Model Used to Study the Efficacy of the Surface Proteins of Preventing Dental Caries", Clin. Diagnostic				
		GENBAN	Lab. Immun. Jan. 2000. Vol. /Issue. No. 7(1). pp. 49-54 GENBANK ACCESSION NO. A60328, "40K cell wall protein precursor (sr 5' region) - Streptococcus mutans (strain OMZ175, serotype f)", 2/20/1993						
		KIM ET AL, "Purification and properties of bacteriolytic enzymes from Bacillus licheniformis YS-1005 against Stretoccus mutans", Biosci Biotechnol Biochem, Jan 1999, Vol./Issue No. 63, 1, pp. 73-77							
		Streptoco	occus i	mutans OMZ175 (se	l wall protein-coding sequence erotype f)", Infect Immun, Ma	y 1991, Vol./Issue	No. 59, 5, pp. 1620-		
		RAY, CH. Salivary (Compo	onents", Clin. Diagno	eptococcus mutans Fimbria- ostic Lab. Immun., May 1999	, Vol./Issue No. 6(3), pp. 400-404		
		Hydroxya	ROGERS, JEFFREY D., "Role of Streptococcus gordonii Amylase-Binding Protein A in Adhesion to Hydroxyaphatite, Starch Metabolism, and Biofilm Formation", Infect. Immun., Nov. 2001, Vol./Issue No. 69(11), pp. 7046-7056						
ROGERS, JEFFREY D., "RegG, a Protein A Gene (abpA) Expression				FREY D., "RegG, a (abpA) Expression	a CcpA Homolog, Participates in Regulation of Amylase-Binding in in Streptococcus gordonii", J. Bacteriology, June 2001, Vol./Issue				
/IC/ ZIMMER, MARKUS, "The Mureir against All Tested Clostridium pe			KUS, "The Murein Hed Clostridium perfr	lydrolase of the Bacteriophag ringens Strains", Applied Env	ge 3626 Dual Lysis iron. Microbiol., No	System Is Active ov. 2002, Vol./Issue			
Examine Signature	er /l			ıry/ (03/21/2007	·')	Date Considered			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

^{*}EXAMINER: Initial if reference considered, whether or not citation is in comomise with MPEP 609. Draw into through citation in the comomise and not considered, include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of Information is required by 37 CFR 1.98. The information is required to obtain or rotain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burdon, should be sent to the Chiof information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.